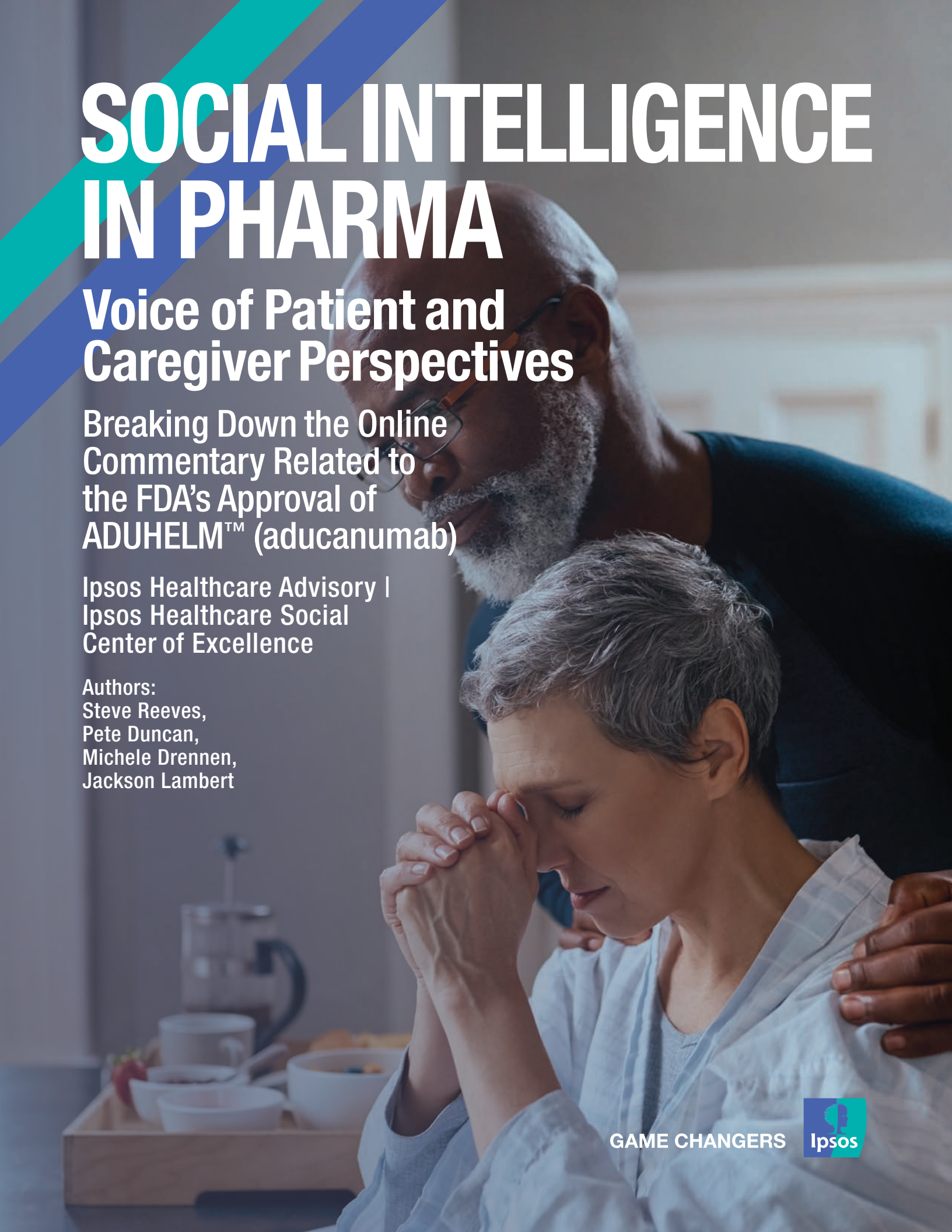
SOCIAL INTELLIGENCE IN PHARMA

Voice of Patient and Caregiver Perspectives

Breaking Down the Online Commentary Related to the FDA's Approval of ADUHELM™ (aducanumab)

Ipsos Healthcare Advisory | Ipsos Healthcare Social Center of Excellence

Authors:
Steve Reeves,
Pete Duncan,
Michele Drennen,
Jackson Lambert



GAME CHANGERS

Ipsos

Pharma marketers are advancing and rethinking digital strategies, reworking relationships with healthcare providers and patient influencers, and advancing digital videos and one-to-one targeting."
—FiercePharma

About This White Paper

With the recent ADUHELM™ approval news, there has been a major influx of online commentary, including perspectives from a wide variety of entities which comprise the wider Alzheimer's digital ecosystem. Ipsos Healthcare, in partnership with our Social Intelligence Center of Excellence and therapeutic area experts, developed a three-part series to show the cumulative impact of this major market event as heard online. This paper will focus on the patient and caregiver point of view

Setting the Stage

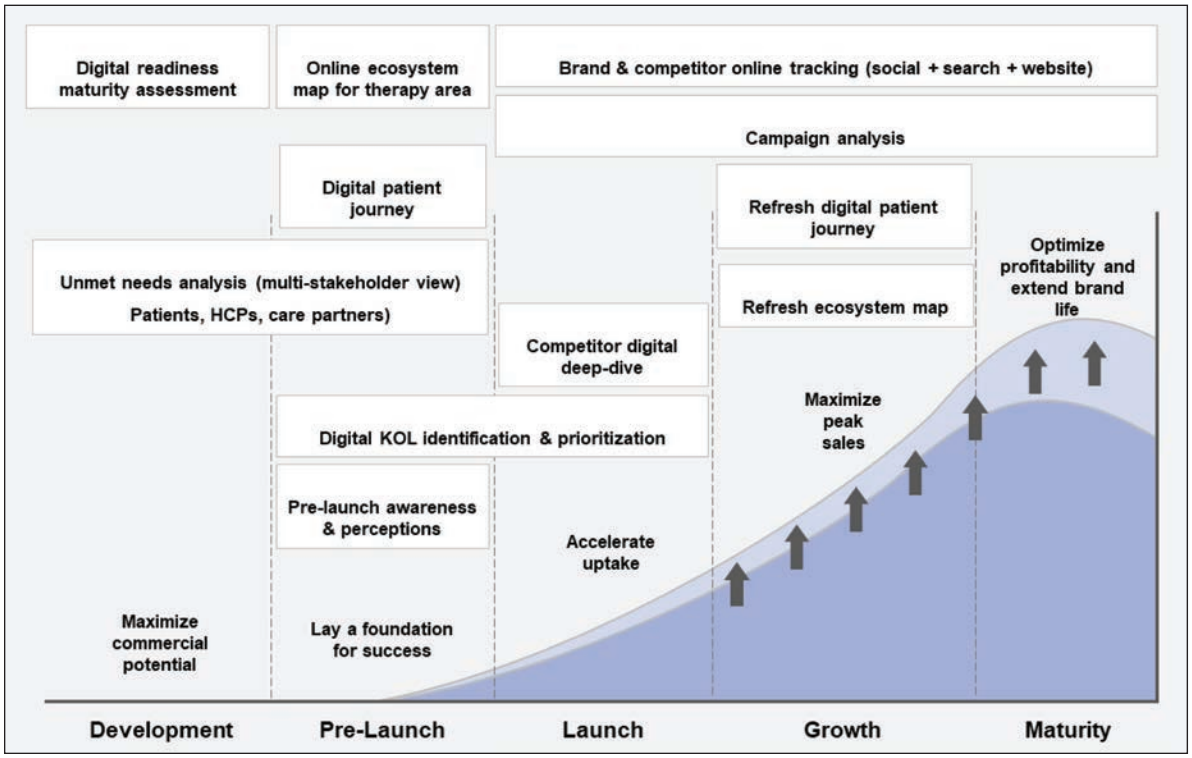
In the past several years, a sizable increase has been notable in the use of social data and online channels for research by the pharmaceutical, biotechnology and MedTech industries. At Ipsos Healthcare, we call this Social Intelligence Analytics (SIA), which is a key component of a larger set of "digital readiness" solutions.

"Digital readiness"* is defined as *"the preparation and planning a therapy area franchise or brand includes in their launch planning and commercialization strategies to reach patients, caregivers, physicians and other healthcare stakeholders online more effectively."

Social intelligence Analytics (SIA) within healthcare, is wholly about understanding the unprompted views, mindsets, decision drivers, emotional characteristics and digital behaviors of healthcare stakeholders. It's also about understanding the dynamics of the wider therapeutic category online, how healthcare information is disseminated, how it impacts decisions, and—most importantly—what organizations can do to harness this massive amount of information sometimes referred to as the world's largest focus group.

As depicted in the following chart, the utilization of social data and social intelligence frameworks is best done in a systematic, strategic fashion, in alignment with wider commercialization and launch-planning milestones. Since social intelligence offers a variety of stakeholder vantage points, much can be done leading up to launch, but even more once a drug is approved and enters the market. We see accelerated investment in this kind of research starting 18 months pre-launch.

Key Tenets of an Impactful Social Intelligence Program



Did you know that according to Pew Research, 74% of internet users engage on social media, and that 80% of those internet users are specifically looking for health information?

Digital readiness, for which social intelligence is a key part, is the preparation and planning a therapy area franchise or brand includes in their launch-planning and commercialization strategies to reach patients, caregivers, physicians and other healthcare stakeholders online more effectively."

Steve Reeves, Vice President, Healthcare Digital Strategy & Social CoE Head—North America

Breaking Down the ADUHELM™ Launch & Mapping the Online Ecosystem

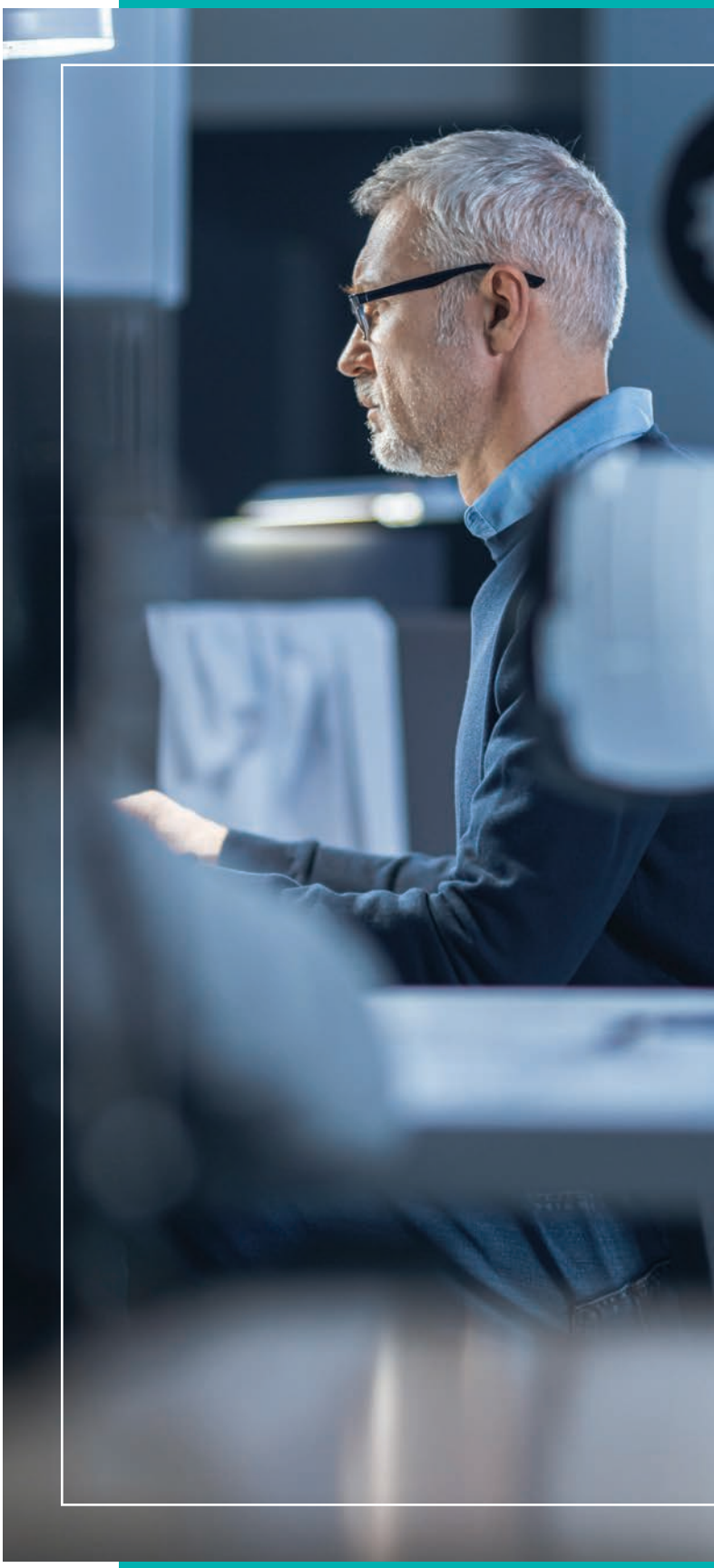
To illustrate how social data can quickly unearth perspectives from a variety of healthcare stakeholders in near-real time, Ipsos Healthcare Advisory, in partnership with our Healthcare Social Intelligence Center of Excellence and Alzheimer's therapy area experts, sought to break down response to the recent ADUHELM approval, which we will continue to track on an ongoing basis.

Alzheimer's disease impacts not only the patient, but all those who love and care for that individual as well. As patients lose their sense of self, caregivers lose their loved ones a little bit at a time. It's painful—and cruel—as they know it's going to get worse. For years, these multitudes have been holding on to the hope of a disease-modifying intervention. While previous treatments focused on the symptoms, the initial approval of ADUHELM™ represented the breakthrough many had been hoping and praying for."

Michele Drennen, Qualitative Strategist, Ipsos Healthcare—North America

In a landmark decision on June 7, 2021, the FDA approved the use of ADUHELM™ (aducanumab) for the treatment of early-onset Alzheimer's. There have been a variety of differing opinions and observations on the decision, the potential implications for future early-stage Alzheimer's therapies, and the nature of the relationship that exists between pharma, the FDA and key healthcare stakeholders, like patients and patient advocacy groups.

Many of these observations revolve around the inner machinations of the drug approval. Patients and caregivers are struggling to understand "accelerated approval pathways" and "surrogate endpoints," along with what the label means for themselves or a loved one, or what cost they put on potential benefits. As a result, we're seeing that some hope may have been dampened, but not extinguished, from the early-stage online conversation.



Methodology Detail

The guiding questions behind the analysis were the following:

What is the perception of ADUHELM™ online across differing audiences, whether they be patients, physicians, advocacy groups or other HCPs? Further, what is the material impact of the ADUHELM news on the wider Alzheimer's therapeutic category online?

Methodologically, we began by utilizing our social data-gathering platform Synthesio (recently named Leader in Forrester Wave AI-Enabled Consumer Intelligence Platforms study) to harness three years of historical data on aducanumab and ADUHELM throughout a wide variety of digital channels, including Twitter, YouTube, Reddit, forums, blogs and online news sources. Additionally, we explored Alzheimer's advocacy group pages and public Alzheimer's and dementia-related forums.

In addition to a three-year historical pull of aducanumab/ADUHELM data, we also developed a broader query to harvest general Alzheimer's therapeutic category data, which was used to size the wider Alzheimer's landscape online and assess the scale and impact of the ADUHELM news on the wider community.

Lastly, we conducted a time-series analysis of highest concentration of online commentary related to ADUHELM, which was three weeks prior to approval, and three weeks following approval. Though the story continues to shift as time goes on, this analysis provides a solid baseline of the key trends, perceptions and prominent voices connected to the approval.

Moving from static information to insights and finally to intelligence, we utilized a proprietary set of taxonomies (think of them as lenses) that were applied to the data to isolate different stakeholder groups for further study (physicians, industry analysts, patients, patient advocacy groups and caregivers).

The total data corpus included over 185,000 mentions of aducanumab/ADUHELM across a variety of social and digital channels, and over 11 million mentions of Alzheimer's (both clinical and lay terms) to size the overall AD therapeutic category online.

Ipsos gathered data globally across more than 25 markets, including the U.S., Germany, Italy, Canada, Spain, France, Australia, India, China, Brazil, Japan and others.

Time frame	Aducanumab Volume	Alzheimer's Volume
Last three years	N = 185,489 online mentions	N = 11,316,449 online mentions
Three weeks pre approval	N = 5,267 online mentions	N = 309,812 online mentions
Three weeks post approval	N = 76,056 online mentions	N = 464,483 online mentions

Patients & Caregivers

When we examined the ADUHELM™ news in different factions, by patient/caregiver, physician and HCP, and finally, advocacy groups, it was clear that this market event exposed a deep divide between patient and caregiver unmet needs, and the clinical validity of the asset from the point of view of the larger healthcare community. Overwhelmingly, patients and caregivers tended to respond more favorably to the approval, whereas most physician commentary that was identified in the data corpus expressed negativity, disappointment, and a degree of distrust toward the decision.

Patient/Caregiver Sentiment

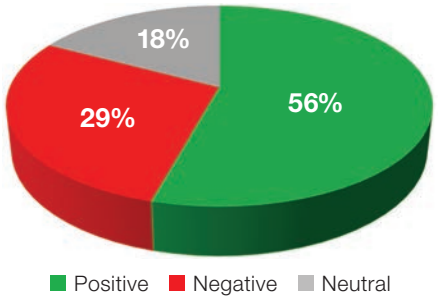


Exhibit A: Patient/Caregiver Sentiment taken from a random sample of N = 500 posts taken from the three weeks following FDA approval

> *#Alzheimer's has taken so much from me and the people I love. If this drug spurs innovation and speeds up the clock, bring it. We've been treading water for too long."*

Of course, with initial excitement patients and caregivers expressed about the approval of ADUHELM, reality set in quickly as conversations began to form about the cost and reimbursement implications and the potential impact on Medicare and Medicaid. When examining the patient and caregiver voice from the time of the initial approval, extending out for the three weeks following the announcement, patient and caregiver positive sentiment dissipated from 65% positive in week 1, to 60% positive in week 2, and finally dropping to 50% positive in week 3. This trend should be continually monitored to assess how patient and caregiver perspectives are changing as time goes on and emerging therapies enter the market.

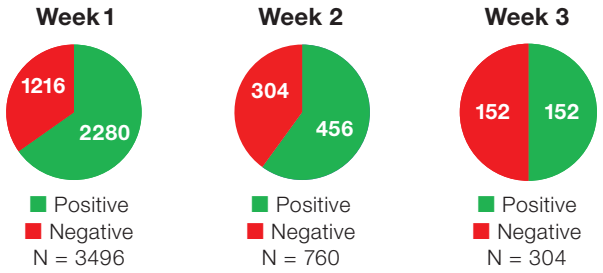


Exhibit B: Patient/Caregiver sentiment change in weeks following FDA approval

Though it is unclear why sentiment may have dropped consistently week-over-week, our hypothesis is that two factors drove this change: The first is that patients and caregivers are struggling to understand "accelerated approval pathways" and "surrogate endpoints," along with what the label means for themselves or a loved one, or what cost they put on potential benefits. Secondly, with the sheer size and frequency of negative commentary from the news outlets, we suspect this played a role in shifting patient and caregiver perspectives.

Through our findings, it is also clear that patients have become a main focus of the Alzheimer's conversation since the FDA approval of ADUHELM™. This is evidenced by Exhibit C, which shows the top 10 keyword shift before and after FDA approval. Patients are being talked about more, and more patients and caregivers are speaking up about their experiences, hopes and fears online.

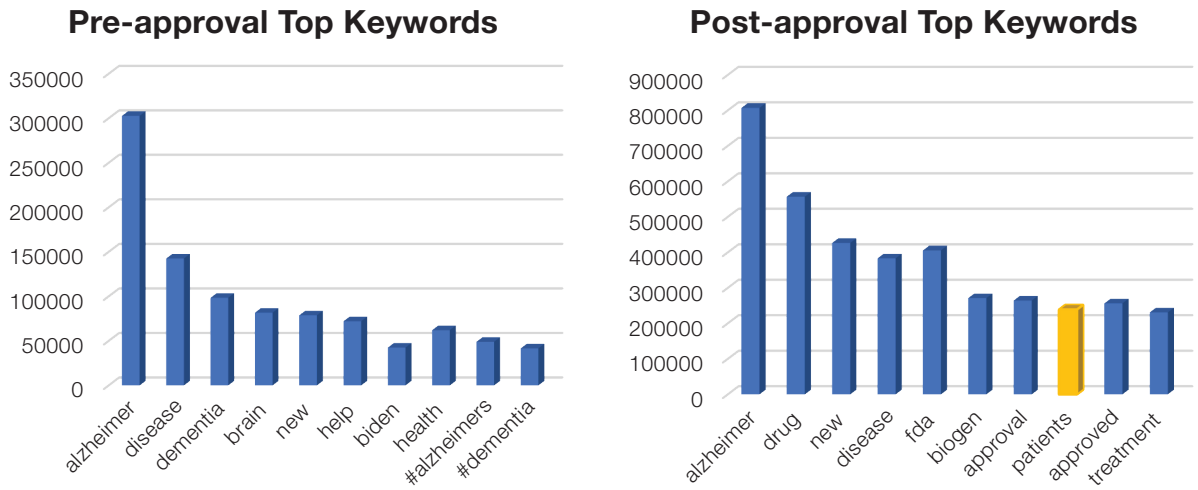


Exhibit C: Top 10 keywords mentioned with "Alzheimer's" three weeks pre-approval and three weeks post-approval

The implications of out-of-pocket costs is one of the many considerations patients and caregivers had to take into account post-approval, at which time payment and reimbursement were common topics.

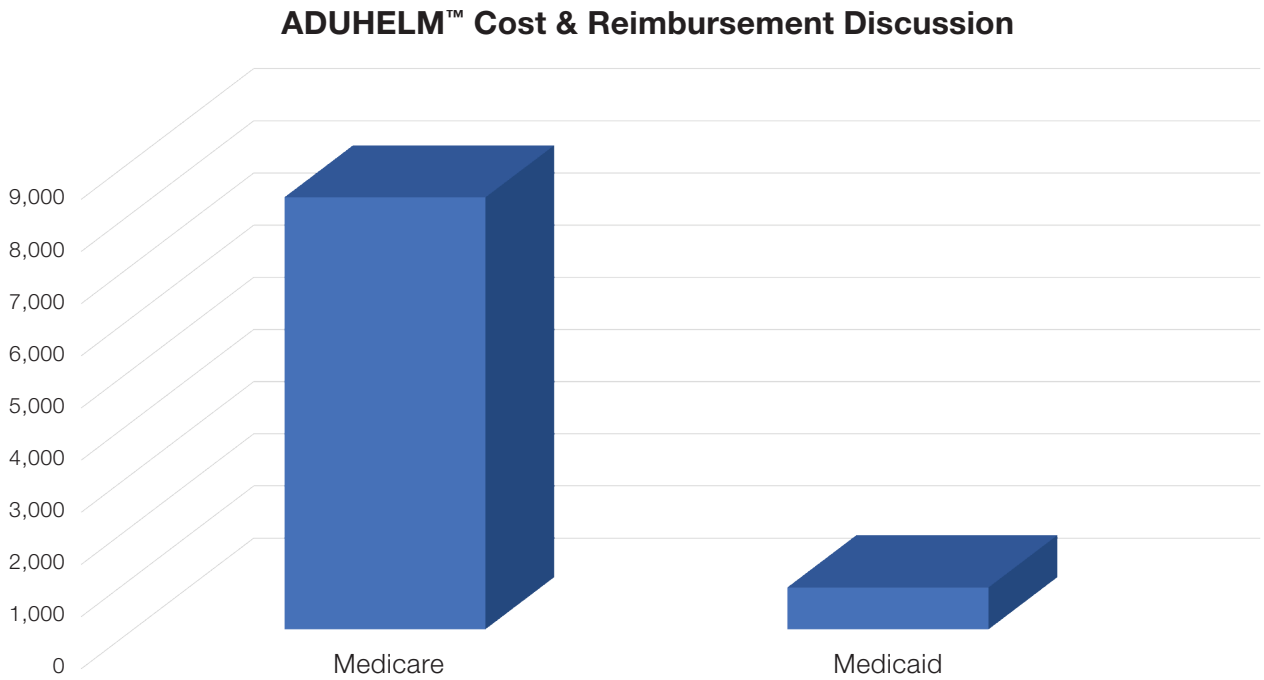


Exhibit D: Comparative view of ADUHELM commentary in relation to Medicare vs. Medicaid N = 9,091 comments

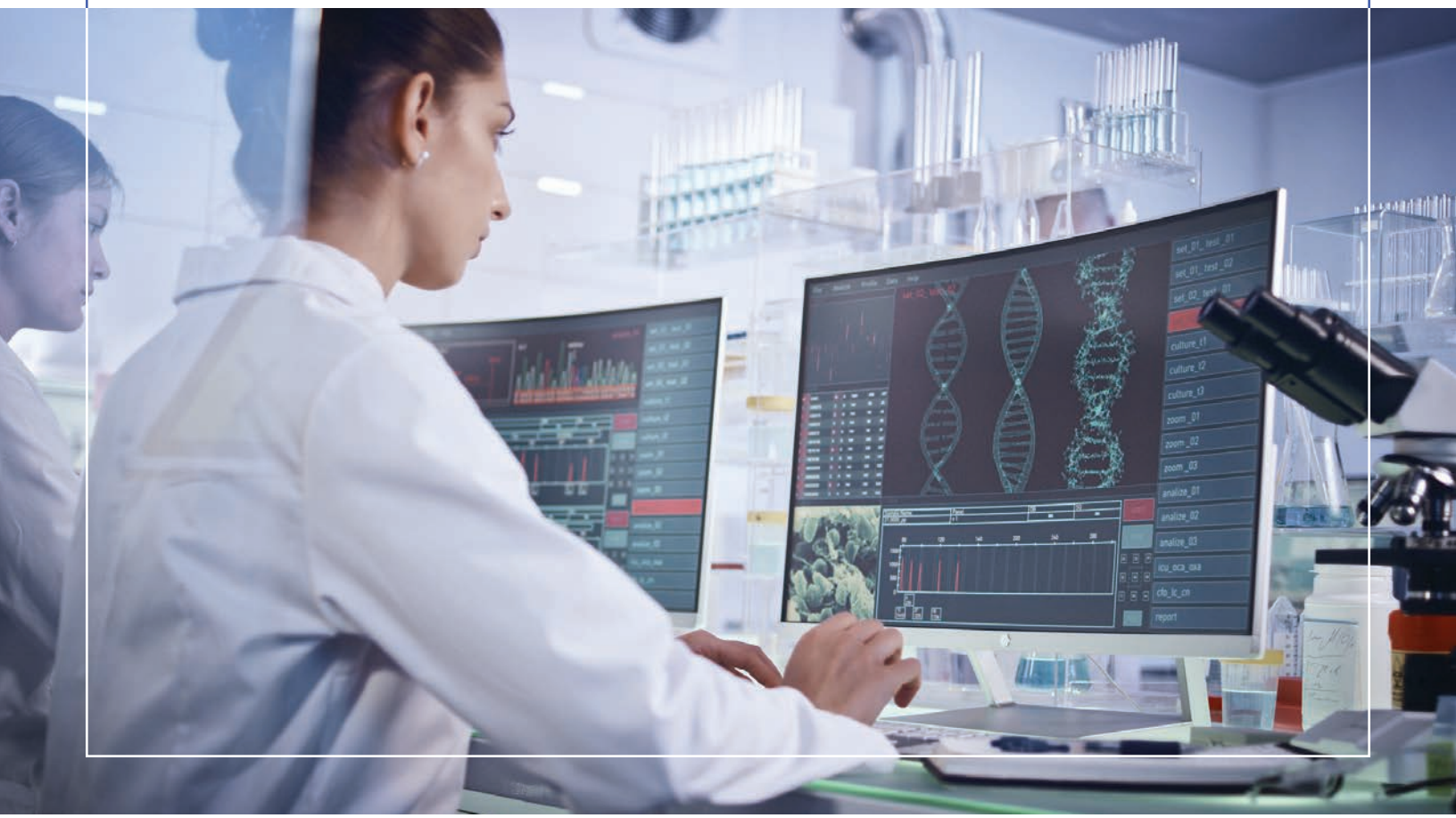
As someone who has Alzheimer's in the family history AND shows a higher risk of getting the disease via genetic testing on 23andme, I'm excited to see some progress on probably my biggest worry of old age. Would something like this be covered under Medicare Part B (I'm fairly ignorant on the whole Medicare system)? I'm also curious how MUCH this slows the disease. $56,000 is wildly expensive, but perhaps that price comes down significantly?

Here's a policy I didn't know about: ADUHELM™ could trigger Medicare's "significant cost" policy. That means at least through 2022, Medicare Advantage insurers wouldn't have to pay for ADUHELM claims. Traditional Medicare picks up that tab.
https://www.axios.com/aduhelm-biogen-drug-price-medicare-44628fff-6564-453f-9e01-2b04e80ff8f2.html

Concluding Thoughts

As happens when a new therapy comes to market, the approval milestone serves as a catalyst for increased patient and caregiver-led conversation. Often, we find that commentary related to patient experience, safety, efficacy, tolerability, access, cost and a variety of other topics begin to grow online six months following approval. Ipsos Healthcare will continue to track and measure the Alzheimer's patient and caregiver point of view and will begin to examine how this approval impacts the AD patient journey.

If interested in receiving customized social intelligence analysis on patients and caregivers, please contact Steve Reeves at steve.reeves@ipsos.com.



About the Authors

Steve Reeves
VP, Healthcare Digital Strategy & Co-Lead of
Ipsos Healthcare Social Intelligence CoE
steve.reeves@ipsos.com

Pete Duncan
Data Scientist & Co-Lead of
Ipsos Healthcare Social Intelligence CoE
peter.duncan@ipsos.com

Michele Godby Drennen
SVP, Ipsos Healthcare
michele.drennen@ipsos.com

Jackson Lambert
Ipsos Healthcare Intern
Notre Dame School of Engineering
jackson.lambert@ipsos.com

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